

## INTERVIEW WITH THE WINNER OF THE 2007 EUROPEAN VISION AWARD (EVA): Prof. Frans Cremers

**EVI:** *When did you get the news that you are the winner of the 2007 European Vision Award?*

Dr. Cremers: At the end of July, actually when I was enjoying a vacation in the southwest of the United States (between the canyon regions and LA).

**EVI:** *Could you tell us about your first thoughts when you heard about the news?*

Dr. Cremers: I was excited, naturally, being the first European Vision Award winner, and proud to be part of a talented group of researchers in Nijmegen.

**EVI:** *As mentioned in the EVA selection criteria: The achievements of the award winner have an extraordinary advancement in the field. Could you briefly describe major aspects of your present research field?*

Dr. Cremers: Together with Mrs. Dr. Anneke den Hollander, I am employing 'genome-wide' approaches to find novel retinal disease genes (Leber congenital amaurosis, cone-rod dystrophy, retinitis pigmentosa), which I think holds great promise for the next 5 years. In another part of the group (funded by EU RETNET), we are searching for novel causes of retinal detachment and exudative vitreoretinopathy. In a strong collaboration with Drs. Carel Hoyng and Jeroen Klevering from the Department of Ophthalmology in Nijmegen, we are also studying the genetic causes of macular dystrophies. Indirectly, I am involved in research that is supervised by Dr. Ronald Roepman and Mrs. Dr. Hannie Kremer, who are deciphering protein-protein complexes in the retina, with a special focus on cilia, involved in (protein) trafficking between inner and outer segments.

**EVI:** *Together with your group you have discovered eight important eye disease genes and been part of groundbreaking studies involving more genes. How would you expect the future direction in this field?*

Dr. Cremers: That is a tough one. High throughput sequencing and microarray approaches will continue to develop into cheaper and thereby more widely used techniques. Within the next 10 years, genetic defects will increasingly be found using these methods which will also open new avenues to better understand more complex diseases, such as age-related macular degeneration and glaucoma.

**EVI:** *Could you tell us some basic rules to become such a successful scientist?*

Dr. Cremers: Initially, you need to have 'practical' talents that enable you to stand out among your peers. You need some luck, but this will come your way if you work hard enough. Equally important, you need supervisors at that stage who teach you how to write papers and grant proposals. Find your own research niche, stick with this topic if it is productive, attract talented young researchers that share your ambitions, and establish long-lasting and complementary collaborations.

**EVI:** *We know you are very active to attract young researchers in the vision research field. You are partner in the RETNET consortium and presently the director of the International Honours Master of Science programme at the University of Nijmegen. What is the driving force to support young scientists?*

Dr. Cremers Two-and-a-half years ago I was asked to coordinate a new research master programme in Nijmegen. I literally dived into a deep and at that time mirky pond. My driving force was that, for the Nijmegen Centre for Molecular Life Sciences institute to become one of the leading research institutes in the world, we need to attract highly talented students. Indirectly, this will also aid my and my groups' research. Actually, only after 2 years, this already has paid off as one of the pioneer Master students has successfully applied for a personal PhD career award and started in September in the group of Ronald Roepman.

**EVI:** *What would be your advice for young researchers?*

Dr. Cremers As generally known, top-positions in academia are quite rare. Universities consist of 'pyramids' with a large base of BSc and MSc students, a big layer of PhD students and increasingly smaller numbers of postdocs, assistant, associate and full professors. Therefore, evaluate your own career critically, especially between 2 and 4 years after your PhD. If you are talented in writing papers and projects, are a good people-manager, and enjoy doing research, go for it. If not, consider other career options.

**EVI:** *Please tell us about the importance of scientific collaborations?*

Dr. Cremers My type of research, i.e. to find relatively infrequent causes of blindness, requires large collaborations to build significant patient cohorts. Some genes are mutated in only 1% of patients, so you need hundreds of patients to come to a significant result. Also, collaborations will enable you to expand your technical options and hence to study not only genetic but also molecular and cell biological aspects of new genes, a prerequisite to publish in the topjournals.

**EVI:** *If you would have the chance for three wishes to become true, what would you suggest?*

Dr. Cremers In general: That mankind wakes up and intensively works towards a 'sustainable' society, given the increasing scarcity of natural resources and our growing global population. Though the development of 'rising' economies pose a big problem in terms of natural resources and environmental damage, the rich western countries should take the lead in building a society that can be sustained without depleting our natural resources (forests, oil & gas, fish).

For my career: 1. Patients with congenital or progressive blindness will benefit from therapeutic trials within the next 5 – 10 years for genes that my group identified in the past. 2. Obtaining a substantial grant with minimal 'deliverables' that are formally set. Too much of my time now is dedicated in writing grantproposals.

**EVI:** *Dear Prof. Cremers, we may thank you for this interview and wish you all the best for your forthcoming research projects.*